

Abstract

A multi-band, voltage-controlled oscillator has a switching device that can be certainly turned on and off. The oscillator includes a negative source generator coupled to an output of a buffer transistor from which an oscillation frequency of an oscillating transistor is released, a switching device for selectively switching between an output of the negative source generator and a positive power source, and a mode switching device receiving an output frequency switching signal from the outside. An output of the switching device controls an opening and short-circuiting operation of a first switching device to selectively release oscillation outputs in a low frequency band and a high frequency band from an output port.